

THE MALAYAN GREAT TIT

BY

JAMES CAIRNS, M.C., M.B.O.U.

(With a plate)

The Malayan Great Tit (*Parus major ambiguus*) is so severely limited in local distribution that, for this reason alone, it must be considered a very rare bird; and as far as I am aware it never has been recorded from any Malayan island large or small. Nevertheless for the past thirty-five years, to my knowledge, it has been a resident and breeding species in Penang Island. Malay residents of venerable age with whom I frequently converse have known the bird since boyhood, back to 1885. Its home is the seven-miles-long mangrove forest reserve on the west coast, the width of which varies from one hundred yards to half a mile. After years of intimate association with this reserve I estimate that the Great Tit population is, at the very least, in the region of 50 pairs per mile and is probably twice this number. The bird also has inhabited for a similar length of time the vast mangrove forest which engulfs the estuary of the Sungei Merbok, West Kedah, where it is equally numerous; and it is indeed surprising that no ornithologist past or present ever has reported its presence from either habitat. The published annals of distribution areas are therefore woefully incomplete.

The Malay name of the Great Tit is *chiak bengala bakau*, the probable origin of which could be the bird's white-cheeked resemblance to the Java Sparrow, whose Malay name is *chiak bengala subang*. The two, however, have no further similarity.

One of my perennial habits has been to visit the tits' reserve once every week and through such persistent continuity I have amassed considerable information concerning the life, domestic economy, habits and ecology not hitherto known or recorded. This paper is a collated and correlated presentation of important essentials and characteristics of a wonderful little bird.

Methods of food-searching are typically tit-like: hanging inverted from sprays and twigs; stretching out from very slender perches; carrying dead leaves sometimes much larger than themselves to any convenient place and standing on them with both feet while they probe every curl and curve. They are particularly partial to exploring dead leaves on the ground itself, and tangles of storm-broken boughs strewn about the glades, making many trips from this debris up to the canopy and from the canopy back to the ground during their feverish restless rummaging. They drink rain water from holes high up in trees. In this forest paradise they have no fear of man and feed without the least concern at very close range. They may on occasion be seen in young mangrove saplings, but their real love is the older trees. They constantly associate in due season with

Arctic and Crowned Willow Warblers (*Phylloscopus b. borealis* and *P. i. inornatus*), White-eyes (*Zosterops p. williamsoni*) and Fly-eaters (*Gerygone sulphurea*) feeding and singing and moving together: the first two species often in great numbers. On such occasions, and in such mid-March gatherings, the tits utter what I consider to be their true nuptial song. The forest rings with these wild, clear, tempestuous phrases *te-bet-chu, te-bet-chu, te-bet-chu* (accent on the middle syllable) repeated over and over while glancing through and gracing the canopies. Prolonged experience and accumulated evidence have convinced me that pairs occupy definite territories and zones of activity. They have their feeding circles and cycles. They have their favourite glades where one may see as many as 20 pairs at a time communally preening, singing, feeding and flirting: and again there are glades where no tits ever come. The bird is not what I call an early morning exhibit. The best hours of the day for viewing it are between noon and 5 p.m.

Like all tits our bird occupies a favourite nesting site year after year so long as it lasts. One of many known to me is a small api-api stump only about 3 ft. high and 5 in. in diameter, which has been occupied by a pair for the past seven consecutive seasons, and it still stands. The cavity walls have become smooth and shiny from long use. The stump, semi-decayed, stands in a transept of scattered tall trees and the sun shines on it only for one short hour of the long day. At this spot on 16th January 1955 a beautiful male Great Tit suddenly appeared some 20 ft. to my right, greatly agitated and uttering a continuous stream of rapid notes *rrrr-chi-chi chi-chi-chi* followed by a running *churrr* and flirting its tail and wings in unison. Presently it flew to the nest stump which has a three-way split top. After some tilting and testing it disappeared by sliding down the entrance funnel head first. In about a minute it was out again, then in again, then out, calling incessantly. At this point the female appeared from nowhere and joined the male on the stump. The male's notes then changed to *pe-lay pe-lay pe-lay pe-lay*. (All the black of the female's plumage is less intense than the male's and her central under-body band is narrower; but each sex has a small grey-white notch inset at the base of the black nape.) She slid into the cavity without hesitation, emerged, went in again and then out. Both birds appeared to enjoy themselves thoroughly by wriggling upwards through the narrowest of the three exits. Eventually they drifted off together down a corridor of green light. This is typical of the site-prospecting and frolicking that begins in December and goes on through January, February and early March.

It is positively amazing how these birds start bustling and building almost to the day—the third Sunday in March—year after year. On 20th March, two pairs of tits were seen in mixed leafy and dead scrub at ground level. Both females were collecting what appeared to be shredded bark or fine fibres while the males attended but did no collecting. The take-off was awaited with quiet concentration for it is no easy matter to follow, even with binoculars, the fast flight of such small grey birds through sun-and-shadow-dappled forest. A second factor which increases the difficulty is that the birds change



Mangrove home of the Great Tit.



Nest site of the Great Tit in three-foot high stump.

(Photos: J. Cairns)

their relative positions during flight. The first pair to depart were almost immediately lost in transit behind massed foliage but the second pair, travelling through older forest, were successfully marked down 150 yards from my viewpoint. Both birds stopped on the same bough of a leafy tree, then some moments later the female flew to the apex of an isolated tree-stem standing in a glade, and at once dived vertically down a cleft just below the summit with her crowded beakful of fibres. On emerging both flew off in a direction away from me. The normal routine of all building pairs I have ever seen is the same. Females collect materials and shape the nests while males accompany their partners on all flights at this period; but later on males spasmodically help to construct second nests. The stem on closer examination proved to be very decayed indeed. For this reason it could not be climbed nor could it be successfully viewed from any adjacent height. The entrance to the nest was on the north side about 1 ft. below the summit which was judged to be 13 ft. high. It was not a site which, without preknowledge, one would examine in casual passing. There being no necessity to inspect at this stage, withdrawal was made without disturbing tree or nest.

On 27th March my Malay climber and I returned with a 15 ft. ladder. The stem, however, was too frail to support even the slight weight and so I held the ladder erect close to the tree while Rali gingerly eased his way upwards. With the aid of a torch he was thus able to peer into the cleft without touching the tree. He reported the nest held no eggs but appeared to be complete and made of soft substances which could not be identified in the meagre light. It was $7\frac{3}{4}$ in. down the stem from the lower lip of the entrance and completely filled the width of the cavity bottom.

We returned again on 3rd April and on reaching the tree stem tapped it gently and out came the female tit immediately. She flew off without any undue protest. This order of things is completely reversed when incubation is advanced. Some birds refuse to leave the nest and may be lifted out; but from those that do, scoldings are eruptive and vehement. Repeating last week's procedure I held the ladder upright and in due course Rali reported the nest contained five beautiful eggs. These were chalk white, slightly glossed, thickly freckled with liver brown over the large ends, while the lower halves of the shells bore few spots. The grouping on one egg was dense enough to form a cap. They measured 17×13 , 17×12 , 17×14 , 16×13 , 18×14 mm. The nest was shaped like two-thirds of a saucer, this being the shape of the hollow it filled, and along the 'straight' third which was actually a flat curve, measured 3 in., and the diameter $2\frac{3}{4}$ in. The whole structure was amazingly shallow, $\frac{3}{10}$ of an inch only at the deepest centre of the interior, and only a $\frac{1}{2}$ in. thick at the thickest part of the material which in places was less than a $\frac{1}{4}$ in. thick. Like all tits' nests previously seen, this nest was unique in these respects, and also in the composition of its fabric. The interior was completely black; composed of a uniform layer of very fine hair-like fibres probably collected from tidal debris, overlying and woven into a lower layer of beige-coloured vegetable felt probably collected from swamp sedges. Below the felt was a second layer of

black fibres, and below these a second discontinuous layer of cinnamon-coloured felt. Throughout, the lower layers and nest rim were stiffened with fine wiry grass threads. At one point on the edge of the structure were two small tangles of white spider silk; and the eggs lay on tufts of dark-tipped grey rat's fur. The presence of wiry grasses and vegetable felts denotes journeys outside the forest to obtain them. Wood chips, if any, below a nest are entirely fortuitous. Nests are always very simple, very shallow, neatly moulded by the sites containing them, and have burnished black interiors.

While at the nest I recorded several new song and call phrases. If separated in flight or in different trees the notes were *tee-hoo-hee*, *tee-hoo-hee*, followed by *chiky chiky chiky chiky chiky*. Constantly uttered was a swelling phrase sounding exactly like *te-pel-weetyu*, *te-pel-weetyu*. *Pray-tay-tay-tay-tay* was a rapid alarm: a soft *choorip-choorip-choorip* never ceasing when entering or leaving: and when food hunting the call became a double syllable, the first accented — *teehu-teehu-teehu*— very like the see--saw notes of the European Great Tit. On the point of leaving I saw the female take fresh material into the nest which may have been to repair minor displacements; while the male, idling in thin foliage, sang —*tay-cheetsaway-cheet*, *tay-cheets-~~away~~-cheet*— softly and sweetly to himself.

A week later I was astonished to discover a second pair of tits building in the south side of the same tree stem, just 2 ft. below the occupied nest. Great Tits were everywhere and their loud clear calling *wheest-tu-wheest*, *wheest-tu-wheest* made the forest resound. In one hour I saw 12 pairs.

Although I visited the reserve as usual on 17th and 24th April I did not go near the nesting tree on these dates; but on my 1st of May visit I saw the male feeding his full-fledged family. While the parent was away foraging, the young also foraged on their own but were not observed to collect anything. The male fed each young bird in turn and on his every approach there was great agitation: fluttering, gaping and fluffing of feathers. After being fed they continued to explore leaves while the male preened. The female did not once appear. Young birds are strikingly different from adults. The whole head, nape, throat, breast and under-body band are grey not black. The band itself is very narrow and runs down only as far as the lower breast, fading out altogether before reaching the position of the legs; whereas in the adult it runs right along the abdomen, between the legs and over the vent to the tail. The edges of both mandibles in the young are pale yellow-white; the inside of the mouth is flesh-coloured, and the white checks are filmed with grey. Near this family I found myself surrounded by a party of six adult tits. In a phase of a fracas between two males one bird, which was hanging by its feet head down and swinging up to peck at the other perched immediately over it, was visibly surprised when the upper bird dropped below it and hung itself by its feet from the hanging bird's legs. The added weight broke the grip of the latter and the falling birds almost hit the mud before they separated and flew off.

May 8th was a day of monsoon rains and violent winds. While sheltering in a pondok¹ quietly enjoying a pipe two male tits came out of the mangrove and perched on high, half dead trees standing in an open swamp close by. From these stormy heights they sang a song-phrase, new and unforgettable, for a continuous period of twenty minutes before returning to the rain drenched forest. In a wilderness so wet the song itself had a liquid, storm-tossed quality: *wet-it will wet you-will wet you-will wet you: wet-it will wet you-will wet you-will wet you* is an almost exact rendering. At any rate by repeating it I can relive the rapture and sense the storm.

Throughout May the mangrove is rich with flying first broods, but in the first week of June second clutches are being laid in the same nests, or second nests are being built in new sites. Incomplete nests, complete nests without eggs, fresh eggs, incubated eggs or newly hatched young may be found through June and well into July on the same day. This necessarily means late July nests provide discoveries of incubated eggs in August, but I have never known a single instance of a clutch being laid entirely in August or, at the inception of the season, in February. Egg-laying occurs from March to July inclusive with some incubation overlapping into August; and so the forest remains clamorous with fledglings into September.

Confined as it is strictly to the mangrove belt one naturally expects all nests of the Great Tit to be in the mangrove belt. This, however, is not the case. In recent years a phenomenon has developed which is fantastic but true. Many pairs breed outside the forest altogether though adjacent to it. These nests are at comparatively great heights from the ground in holes of isolated dead trees which have been left standing in a felled area. On 5th June I watched a male for half an hour as it made a wide circuit of such trees before entering a hole in one only 60 ft. from where it started and from where I was standing. This detour appeared to be a deliberate attempt at deception. Measured exactly by rope the site was 71 ft. from the ground on the south side of the hole. The nest was an oblique 7 in. from the entrance which was very narrow indeed, a mere 1.6 in. in diameter. Thirty ft. higher in an adjacent tree was an old Serpent Eagle eyrie. Both tits were seen to enter the hole with materials, one waiting till the other came out. At such a height in such a tree standing in denuded land one would never dream of looking or expect tits to breed. The whole width of the male's chest was black and the central body band very black and broad. This is usual in full breeding plumage. Flight is fairly fast, somewhat jerky but more or less straight and lacks the erratic side-slipping of the sunbirds. A week later—12th June—the nest contained one egg, and five eggs two weeks later—19th June. There were, however, only three newly hatched chicks on 2nd July. I suspect a lizard which I saw come out of the hole, of having eaten two. The three flew on 16th July. Also on 5th June, two miles further north, a second nest was located. A male in fine fettle and plumage was seen coming *out* of the mangrove with materials which

¹ A small thatch hut for shelter from rain and sun.